

## CLAIMS

1. A chain shortening device for shortening an associated chain consisting of oblong links having a material thickness d, an outer width w and an outer length l which is longer than said outer width w, said chain shortening device comprising:

- a unitary elongated body (10) shaped generally like the letter "C" with first and second slot portions (20C,20D) located at the free end portions of the "C",
- each of said slot portions including a first and a second pocket-like configuration (20A,20B), respectively, for positioning selected links (L2,L6) of said associated chain in a first and a second coupling position, respectively, and
- each of said first and second slot portions having, adjacent to said pocket-like configuration, a width which is wider than the material thickness d of said chain links but narrower than the outer width w of said chain links, and adjacent to a mid portion of said elongated body, a widened slot portion defining an aperture, which is wide enough to permit threading said associated chain through said aperture,
- so that, upon coupling said associated chain to the shortening device with two selected links located in said first and second coupling positions, respectively, the chain links located between the two selected links will form either a straight chain portion, extending at the side of said mid portion of the elongated, generally C-shaped body, or a longer slack chain portion enabling the effective shortening of said associated chain,

**characterised in that**

- said slot portions form parts of a central, single slot (20) extending continuously and longitudinally between said first and second pocket-like configurations (20A,20B), and
- said central, single slot has a widened mid portion

forming a central lead-through opening (20E), which includes said two apertures and which is dimensioned to permit threading through a loop (41) of said associated chain with two parallel strands (42,43),

- 5 - whereby the shortening device can be handled as a separate unit and be attached sideways to an existing, associated chain for the purpose of shortening the effective length thereof.

2. A chain shortening device as defined in claim 1, wherein  
10 said central lead-through opening (20E) is elongated in the longitudinal direction (D) of said elongated body (10).

3. A chain shortening device as defined in claim 2, wherein the width of the slot portions (20C,20D) adjacent to the  
15 central lead-through opening (20E) is only slightly wider than said material thickness d of the links of the associated chain, so as to prevent coupling of the shortening device to a chain consisting of links being stronger than those of the associated chain, and the length of central lead-through  
20 opening (20E) is such as to permit threading through a loop (41) of an associated chain with the links of the two parallel strands (42,43) of the loop being positioned next to each other in the longitudinal direction (D) of the elongated body (10).

25

4. A chain shortening device as defined in claim 3, wherein said central lead-through opening (20E) is wider than said outer width w of the links of said associated chain and longer than 1.5 times that width w.

30

5. A chain shortening device as defined in claim 1, wherein said central lead-through opening has, at said mid portion of said elongated body (10), a waist portion with a reduced

width, which is less than the outer width  $w$  of said chain links but greater than the material thickness  $d$  of said chain links, said waist defining said two apertures on opposite sides thereof so as to permit threading through a central portion of an upright link forming the leading end of said loop (41) of said chain through said waist portion and threading through the adjoining parallel strands (42,43) through said two apertures.

6. A chain shortening device as defined in claim 5, wherein each of said apertures are wider than said outer width  $w$  of said chain links but shorter, in the longitudinal direction of said elongated body (19), than said outer width  $w$ .

7. A chain shortening device as defined in any one of the preceding claims, wherein retainer members (30A,30B) are located in each of said first and second slot portions (20C,20D) so as to selectively retain said first and second selected links (L2,L6) adjacent to said first and second coupling positions.

8. A chain shortening device as defined in any one of the preceding claims, wherein said free end portions of said elongated body (10) are directed obliquely away from each other.

9. A chain shortening device as defined in any one of the preceding claims, wherein seating surfaces (A and B), which form parts of said pocket-like configurations and face towards each other, are located at a mutual distance  $L$  from each other, said distance  $L$  being

$$L = n \times p + q$$

where

n is an odd integer  $> 0$

p is the inner length of each chain link of the  
associated chain,

5  $0 < q < 3.5 d$

d is the material thickness of each chain link.

10. A chain shortening device as defined in claim 10, wherein  
 $2d < q < 3d$ .